

In the Claims

Claim 1 (Previously Amended). A method of preparing high quality homogenous slow-release organic-base fertilizer comprising:

- a. preparing a liquid concentrate comprising one or more plant nutrients, one or more beneficial microbes, one or more organic compounds, one or more penetrant and/or one or more other soil and plant additives, or any combinations thereof; and
- b. adding the liquid concentrate to at least one organic-base byproducts by spraying, injecting, pouring or otherwise adding the liquid concentrate to at least one organic-base byproduct.

Claim 2 (Previously Amended). The method of Claim 23 wherein a dry soluble plant nutrient, and/or organic compounds or a combination of dry soluble plant nutrients and/or organic compounds is added and mixed with the organic-base byproducts containing 70% to 90% moisture, prior to their entry into a rotary granulator/dryer.

Claim 3 (Original). The method of Claim 1, wherein said organic-base byproducts contain 70% to 90% moisture.

Claim 4 (Original). The method of Claim 1, wherein said fertilizer is mixed in a rotary granulator/dryer.

Claim 5 (Original). The method of Claim 1, wherein said liquid concentrate is added to the organic-base byproduct prior to their entry into the rotary granulator/dryer.

Claim 6 (Original). The method of Claim 1, wherein said liquid concentrate is added to the organic-base byproduct when said organic-base byproduct is in said rotary granulator/dryer.

Claim 7 (Original). The method of Claim 1, wherein said liquid concentrate is added to said organic base byproduct after said organic base byproduct exits said rotary granulator/dryer.

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Claim 8 (Original). The method of Claim 1, wherein said liquid concentrate is added to said organic base byproduct as it enters said rotary granulator/dryer.

Claim 9 (Original). The method of Claim 1, wherein said liquid concentrate is added to said organic base by product in said rotary granulator/dryer.

Claim 10 (Original). The method of Claim 1, further comprising the addition of water soluble and/or extended release coatings.

Claim 11 (Original). The method of Claim 1, wherein said plant nutrient can be nitrogen (N), phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), iron (Fe), zinc (Zn), manganese (Mn), copper (Cu), and boron (B), or any combination thereof; said dry soluble plant nutrient comprises ammonium nitrate, ammonium sulfate, potassium nitrate, potassium thiosulfate, potassium phosphate, potassium sulfate, or any combination thereof; said beneficial microbe can be bacterial, fungal, viral, or any combination thereof; said organic compound can be biosolids, humic acid, fulvic acid, plant extract, seaweed extract, kelp extract, extracts of other plant materials, or any combination thereof; said penetrant comprises one or more non-ionic surfactant, one or more wetting agent, one or more detergent based surfactants, one or more silicone, and/or one or more organo-silicones or any combination thereof; said other soil and plant additives comprise water trapping agents, zeolites, natural enzymes, growth hormones, gibberellins, gibberellic acid, and weed and/or pest control agents, ascaracides, molluskicides, insecticides, fungicides, nematocides or any combinations thereof; and one or more organic base byproduct selected from the group consisting of biosolids, activated sludge, municipal compost, animal manures, composted organic byproducts, processed animal body and vegetable products, blood meal, feather meal, cottonseed meal, ocean kelp meal, fish fertilizers, fish emulsions, and fish meal.

Claim 12 (Original). The method of Claim 1, wherein said method produces fertilizers comprising nitrogen, phosphorus, and potassium (N-P-K) percentages (by weight) of about 6-1-0, 7-

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1-0, 8-1-0, 9-1-0, 10-1-0, 12-1-0, 4-2-4, or 6-2-4.

Claim 13 (Previously Amended). A high quality homogenous slow-release organic-base fertilizer composition comprising:

- a. at least one organic base byproduct; and
- b. one or more added plant nutrients, one or more added beneficial microbes, one or more added organic compounds, one or more added penetrant and/or one or more other added soil and plant additives, or any combination thereof.

Claim 14 (Previously Amended). The high quality homogenous slow-release organic-base fertilizer composition of Claim 13, wherein said fertilizer is between 20 and 200 mesh.

Claim 15 (Previously Amended). The high quality homogenous slow-release organic-base fertilizer composition of Claim 13, further comprising the addition of water soluble and/or extended release coatings.

Claim 16 (Previously Amended). The high quality homogenous slow-release organic-base fertilizer composition of Claim 13, wherein said plant nutrient can be nitrogen (N), phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), iron (Fe), zinc (Zn), manganese (Mn), copper (Cu), and boron (B), or any combination thereof; said dry soluble plant nutrient comprises ammonium nitrate, ammonium sulfate, potassium nitrate, potassium thiosulfate, potassium phosphate, potassium sulfate, or any combination thereof; said beneficial microbe can be bacterial, fungal, viral, or any combination thereof; said organic compound can be biosolids, humic acid, fulvic acid, plant extract, seaweed extract, kelp extract, extracts of other plant materials, or any combination thereof; said penetrant comprises one or more non-ionic surfactant, one or more wetting agent, one or more detergent based surfactants, one or more silicone, and/or one or more organo-silicones, or any combination thereof; said other soil and plant additives comprise water trapping agents, zeolites, natural enzymes, growth hormones, gibberellins, gibberellic acid, and weed and/or pest control agents, ascaricides, molluskicides, insecticides, fungicides, nematocides or any combinations

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thereof; and one or more organic-base byproduct selected from the group consisting of biosolids, activated sludge, municipal compost, animal manures, composted organic byproducts, processed animal body and vegetable products, blood meal, feather meal, cottonseed meal, ocean kelp meal, fish fertilizers, fish emulsions, and fish meal.

Claim 17 (Previously Amended). The high quality homogenous slow-release organic-base fertilizer composition of Claim 13, wherein said fertilizer contains one or more penetrant selected from the group consisting of allinol, nonoxynol, octoxynol, oxycastrol, oxysorbic polyoxyethylated sorbitol fatty-acid esters (TWEEN), thalestol, polyethylene glycol octylphenol ether (TRITON), silicone (SYLGARD or SILWET L-77), and silicone/surfactant blends (KINETIC or HERBEX).

Claim 18 (Original). The high quality homogenous slow-release organic-base fertilizer composition of Claim 13, wherein said fertilizers comprises (by weight) up to 30% nitrogen; up to 10% phosphorus; up to 30% potassium; up to 10% calcium; up to 5% magnesium; up to 5% iron; up to 0.05% zinc; up to 0.5% manganese; up to 0.05% copper; up to 0.01% boron, or any combination thereof.

Claim 19 (Withdrawn)

Claim 20 (Original). The high quality homogenous slow-release organic-base fertilizer composition of Claim 19, wherein said fertilizer provides N-P-K percentages (by weight) of about 6-1-0, 7-1-0, 8-1-0, 9-1-0, 10-1-0, 12-1-0, 4-2-4, or 6-2-4.

Claim 21 (Previously Presented). The method according to claim 1, further comprising the addition of one or more beneficial microbes.

Claim 22 (Previously Presented). The composition according to claim 13, further comprise one or more beneficial microbes.

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Claim 23 (Previously Presented). A method of preparing high quality homogenous slow-release organic-base fertilizer comprising:

- a. preparing a liquid concentrate comprising one or more plant nutrients, one or more beneficial microbes, one or more organic compounds, one or more penetrant and/or one or more other soil and plant additives, or any combinations thereof; and
- b. adding at least one dry soluble plant nutrient, one or more beneficial microbe, one or more organic compound, one or more penetrant and/or one or more other soil and plant additives, or any combinations thereof to at least one organic base byproduct.

Claim 24 (Previously Presented). A high quality homogenous slow-release organic-base fertilizer composition comprising:

- a. at least one organic base byproduct; and
- b. at least one added dry soluble plant nutrient, one or more added beneficial microbe, one or more added organic compound, one or more added penetrant, and/or one or more other soil and plant additives, or any combination thereof.

Claim 25 (New). A method of preparing high quality homogenous slow-release organic-base fertilizer comprising:

- a. preparing a liquid concentrate comprising nitrogen, potassium, phosphorus, ammonium nitrate, bacteria, humic acid, one or more wetting agent and natural enzymes;
- b. adding said liquid concentrate to a biosolid;
- c. mixing the liquid concentrate-biosolid composition in a mixing means; and
- d. drying said composition.

Claim 26 (New). The method according to claim 25, wherein said composition is dried at a temperature of 85° to 100°C.

Claim 27 (New). The method according to claim 25, wherein said mixing means is a rotating mixer or blender.

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Claim 28 (New). The method according to claim 25, wherein said mixing means is a granulation drum.

Claim 29 (New). The method according to claim 26, wherein said mixing means is a rotating mixer or blender.

Claim 30 (New). The method according to claim 26, wherein said mixing means is a granulation drum.

Claim 31 (New). The method according to claim 25, comprising adding a liquid concentrate that contains nitrogen (N), phosphorus (P), and potassium (K) in amounts that provide N-P-K percentages (by weight) of about 6-1-0, 7-1-0, 8-1-0, 9-1-0, 10-1-0, 12-1-0, 4-2-4, or 6-2-4 for a finished product.

Claim 32 (New). The method according to claim 26, comprising adding a liquid concentrate that contains nitrogen (N), phosphorus (P), and potassium (K) in amounts that provide N-P-K percentages (by weight) of about 6-1-0, 7-1-0, 8-1-0, 9-1-0, 10-1-0, 12-1-0, 4-2-4, or 6-2-4 for a finished product.

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